Alameda County Congestion Management Agency (ACCMA)

Integrated Traffic Data and Video Exchange System

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Project Manager

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MAKE A DIFFERENCE

Alameda ITDVES

- **Scope**
- **Project Approach**
- **Hardware and Software Architecture**
- **Representative Screen Shots**

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ACCMA

- Congestion management agency
- Coordinate transportation planning
- Coordinate funding

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Project Scope Statement

- Develop and implement an integrated system (SW/HW/network) to address electronic exchange of traffic data and video for several transportation management systems in the region
- System based on COTS, Bentley ATMS

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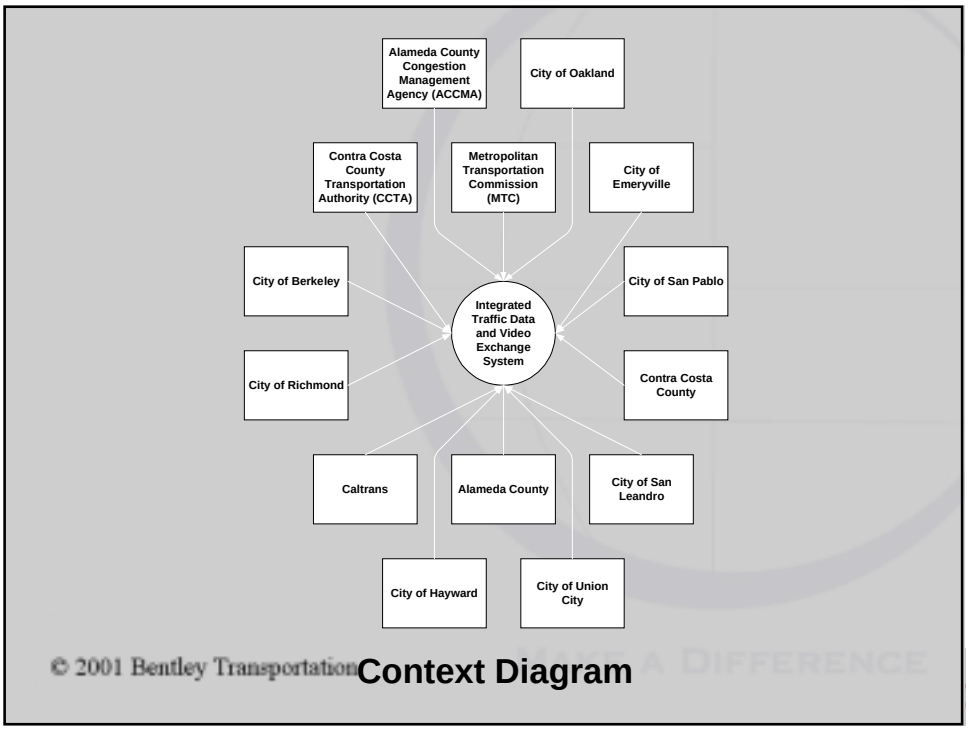

Context Diagram

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Project Management Approach (PMI*)

- **Business**
  - Scope
  - Time
  - Cost
  - Quality
  - Resources
  - Communications
  - Risk
  - Procurement
- **Technical**
  - COTS
  - Networks and Protocols
  - Cameras, Kiosks, Message Signs, Ramps, Detectors
  - Traffic Data
  - System Integration
  - WWW

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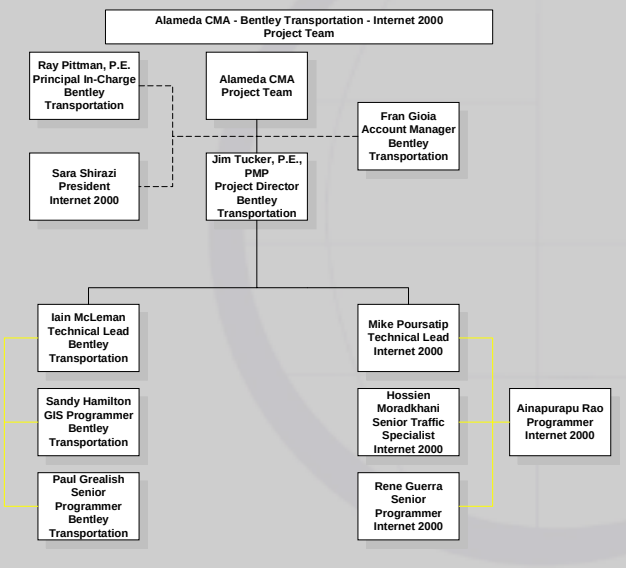
*www.pmi.org



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Work Breakdown Structure

- Project Kickoff
- Data Collection
- Detailed Design Concept
- Architecture Design
- Database Design
- Hardware and COTS Implementation
- Application Functions
- Maintenance
- Support
- Post-installation Evaluation

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Milestone Deliverables

- Kick-0ff
- Data Collection
- Preliminary Project Review
- Main Project Review
- Critical Project Review 1
- Critical Project Review 2
- San Pablo Installation
- Hesperian Installation
- Project Quality Review

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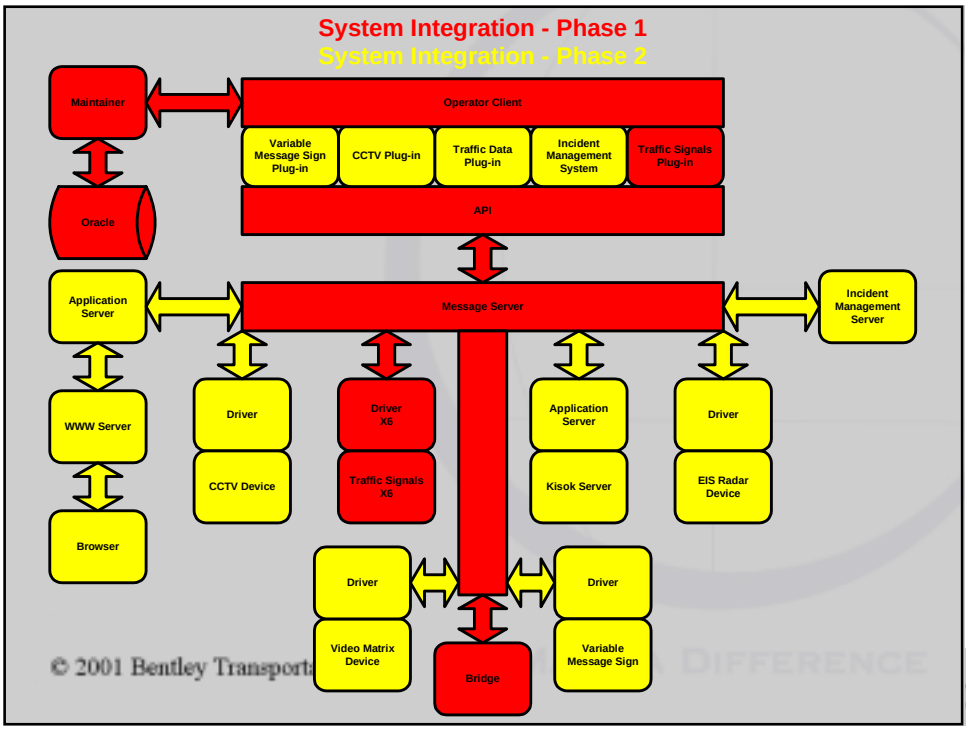

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Architecture

- Intel Pentium processor based Workstations.
- Intel Pentium processor based Servers.
- Microsoft NT/W95/W98 for Workstation/Client
- Microsoft NT Server (Client/Server)
- Field devices
- Oracle RDBMS
- GIS
- Easy to use interface
- Strong vector/Object mapping capability
- Real-time Spatial information display
- TCP/IP
- NTCIP Compliant

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SOFTWARE
- Message Server per CPU
  - 1-10 Clients
  - 11-25 Clients
- Maintainer Seat
- Operator Client
- Web Application Server (view-only)
- Kiosk Client Server
- Incident Management System
- Drivers
  - Traffic Controllers from (pricing per contr
    - CTNET (Caltrans)
    - Quicknet (BiTrans)
    - Aries (Econolite)
    - Icons (Gardner Systems)
    - Naztec
  - Other Traffic Controllers
  - CCTV per Manufacturer
  - Video Matrix per Manufacturer
  - Radar Detector per Manufacturer
  - VMS Driver per Manufacturer
- Developer Toolkit
  - Comprised of Generic Device Drivers,

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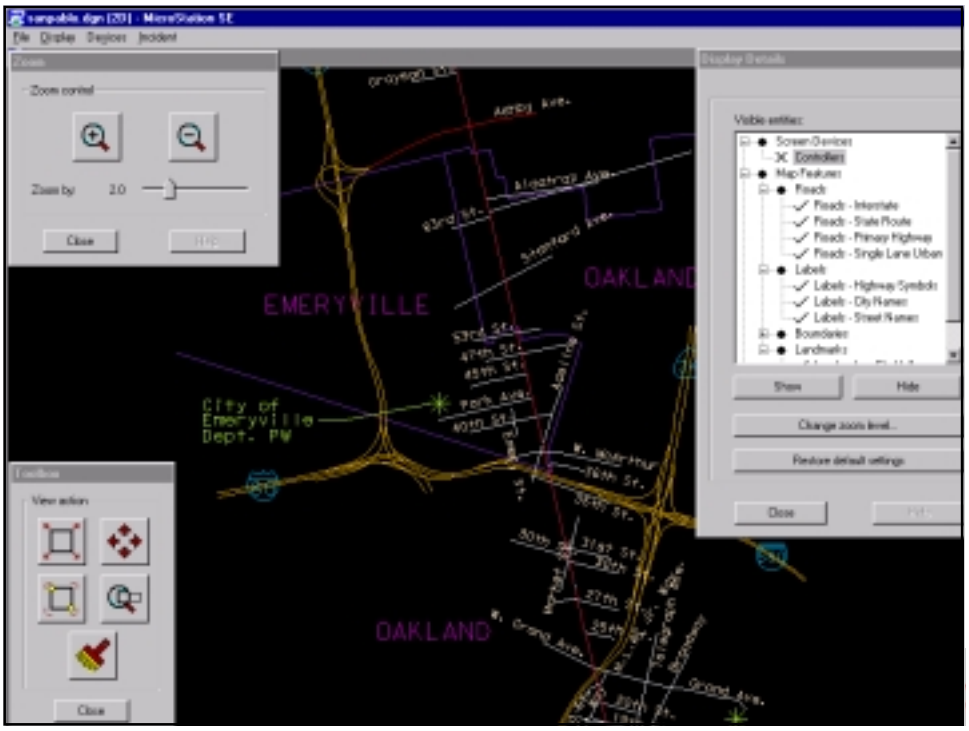
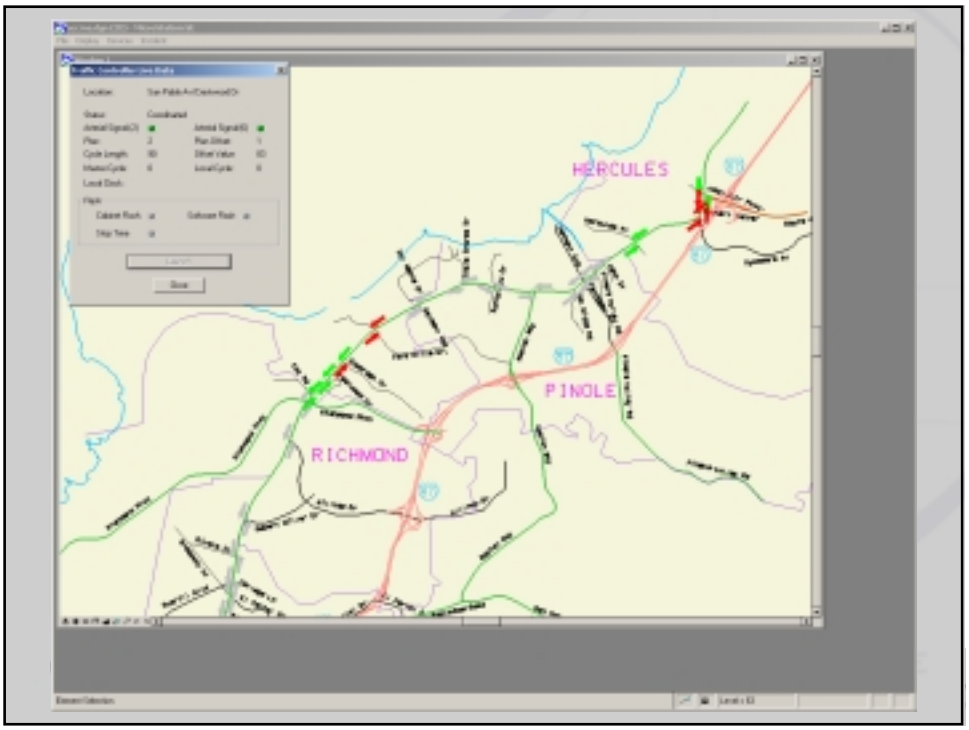
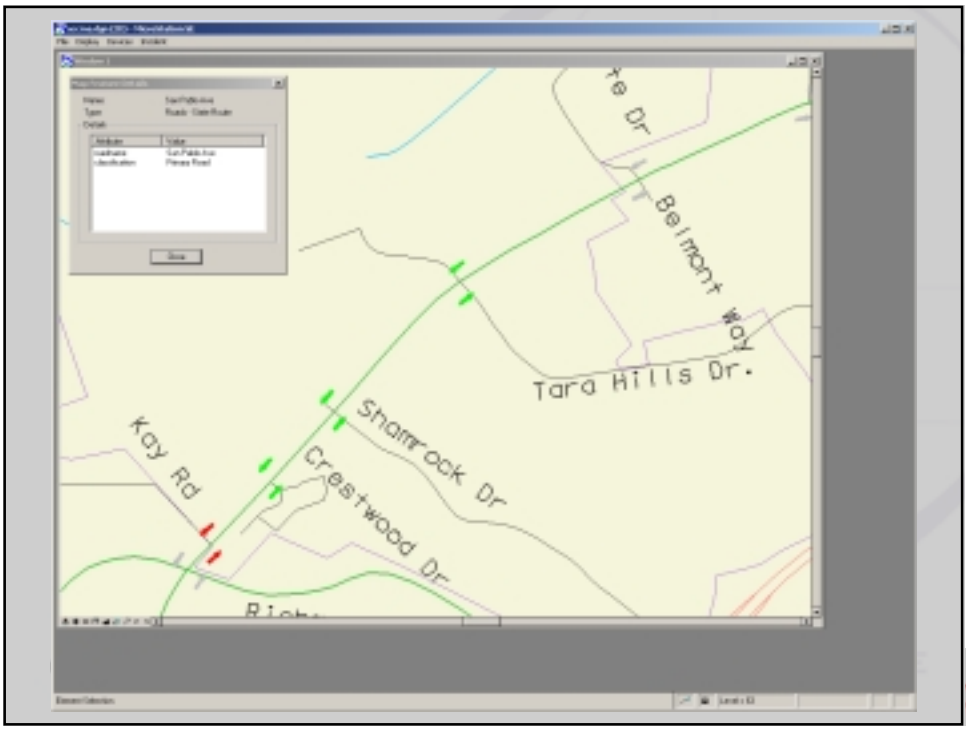
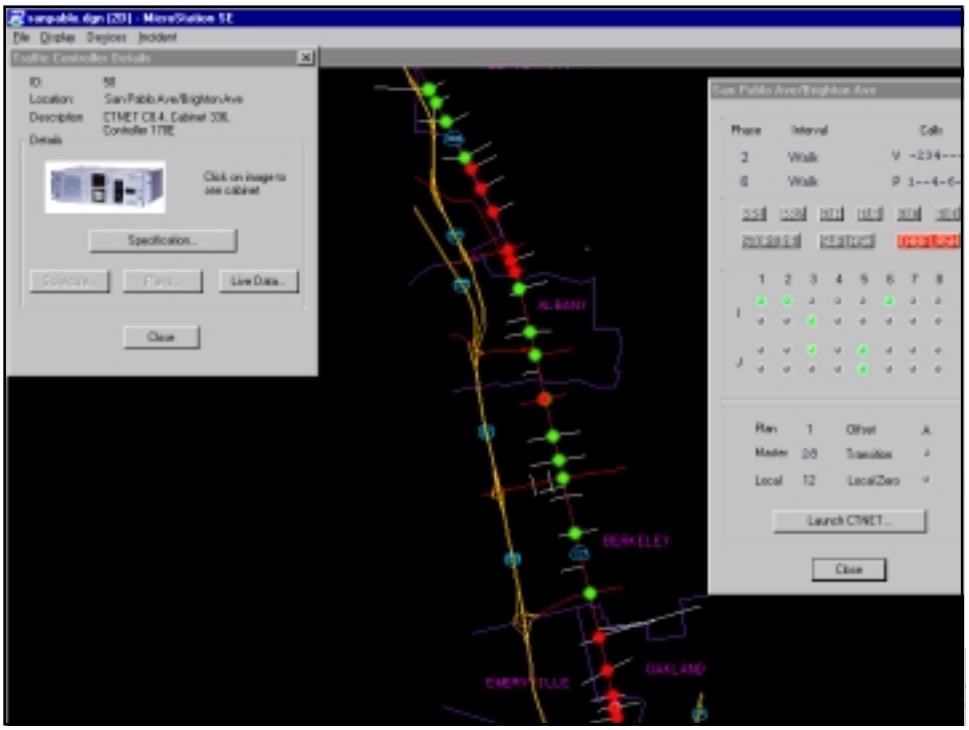
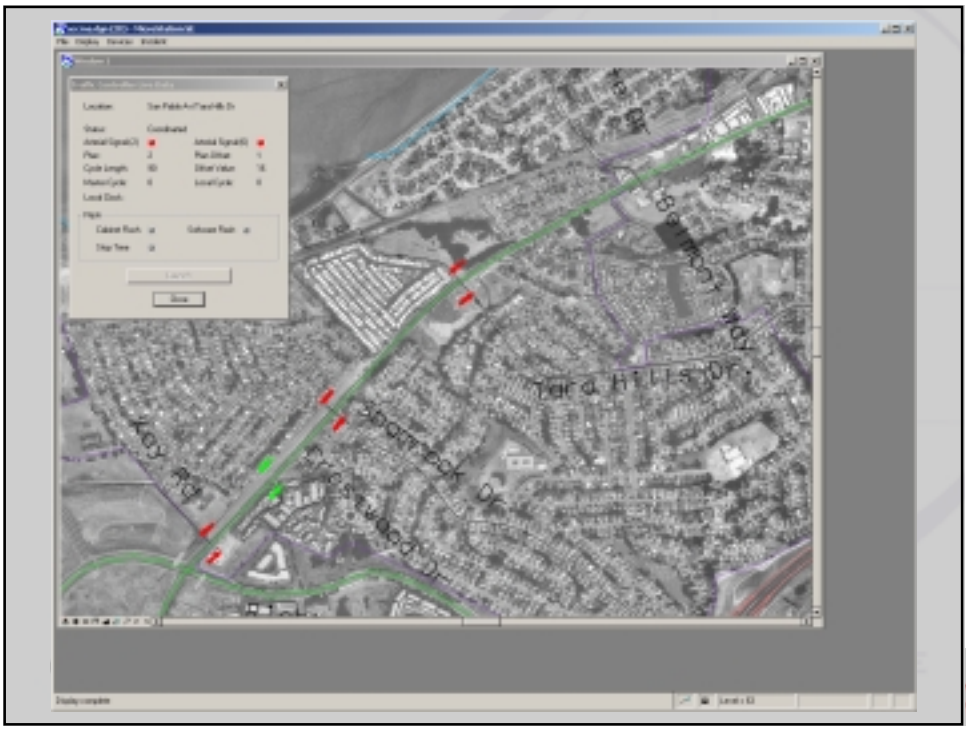
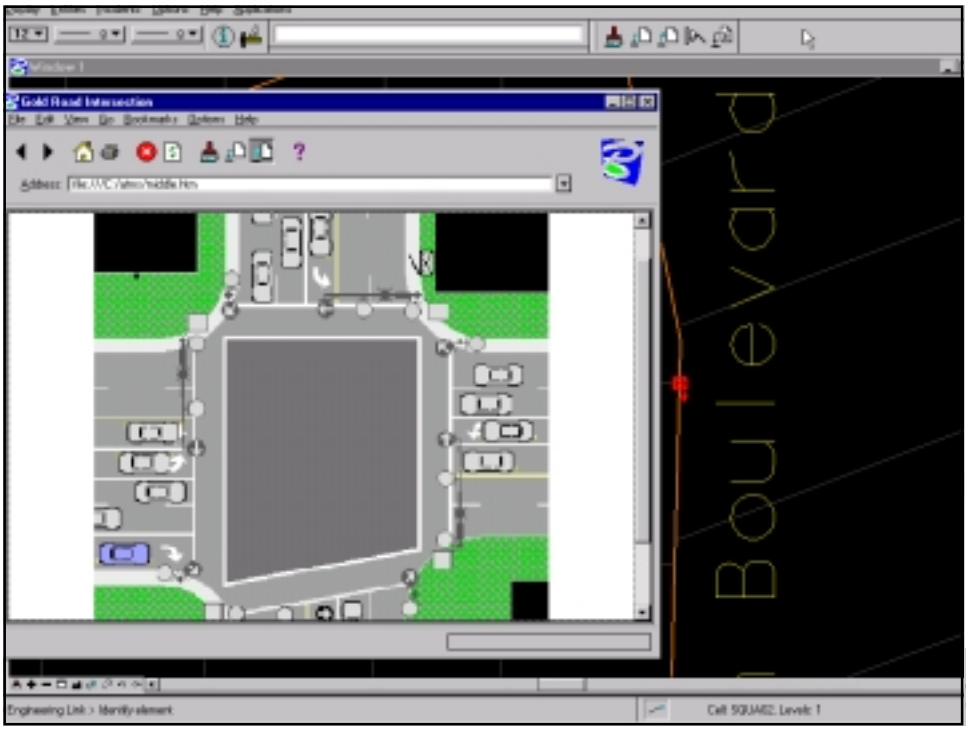

EMERYVILLE
OAKLAND
City of
Emeryville
Dept. PW
OAKLAND


HERCULES
PINOLE
RICHMOND

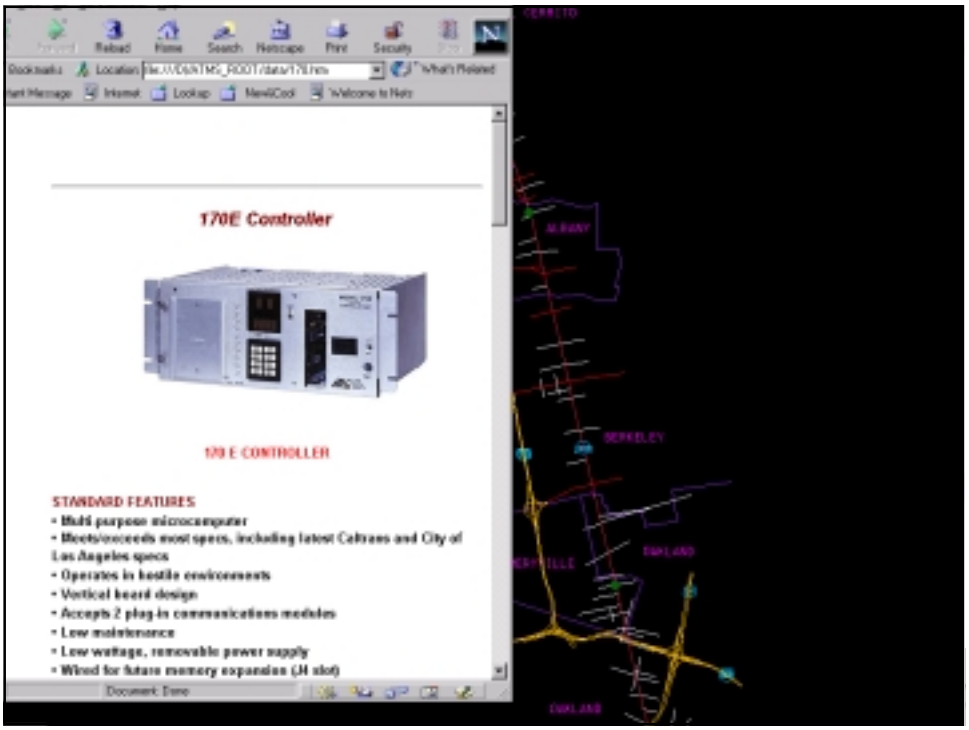

Belmont Way
Tara Hills Dr.
Shamrock Dr
Crestwood Dr
Kay Rd

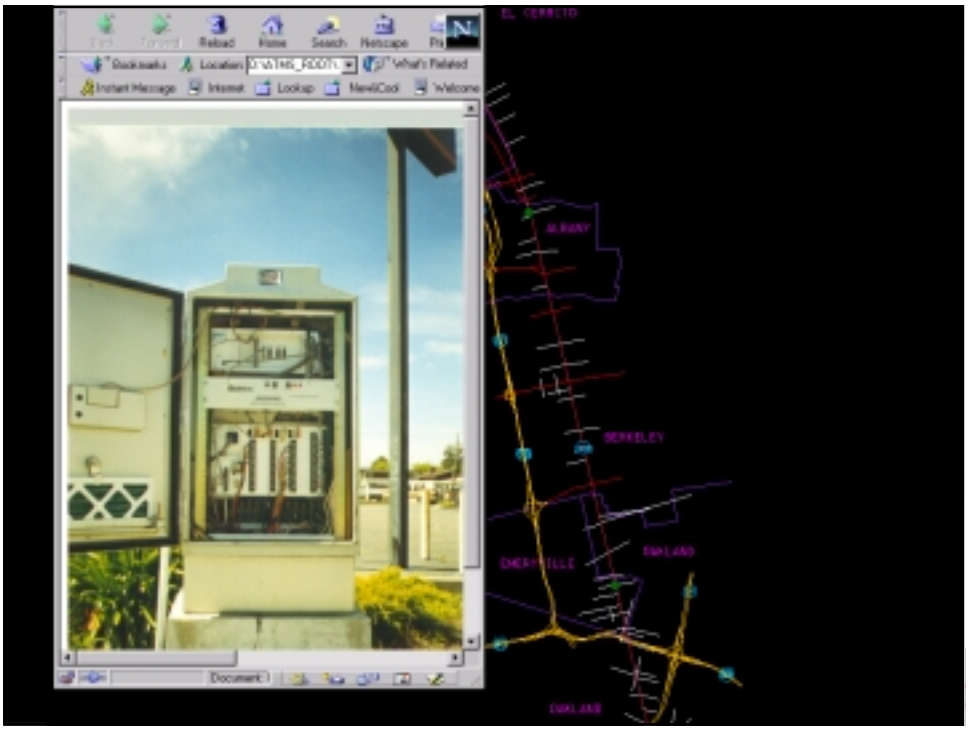

ALBANY
BERKELEY
EMERYVILLE
OAKLAND
Specification...
Close
Launch CTNET...

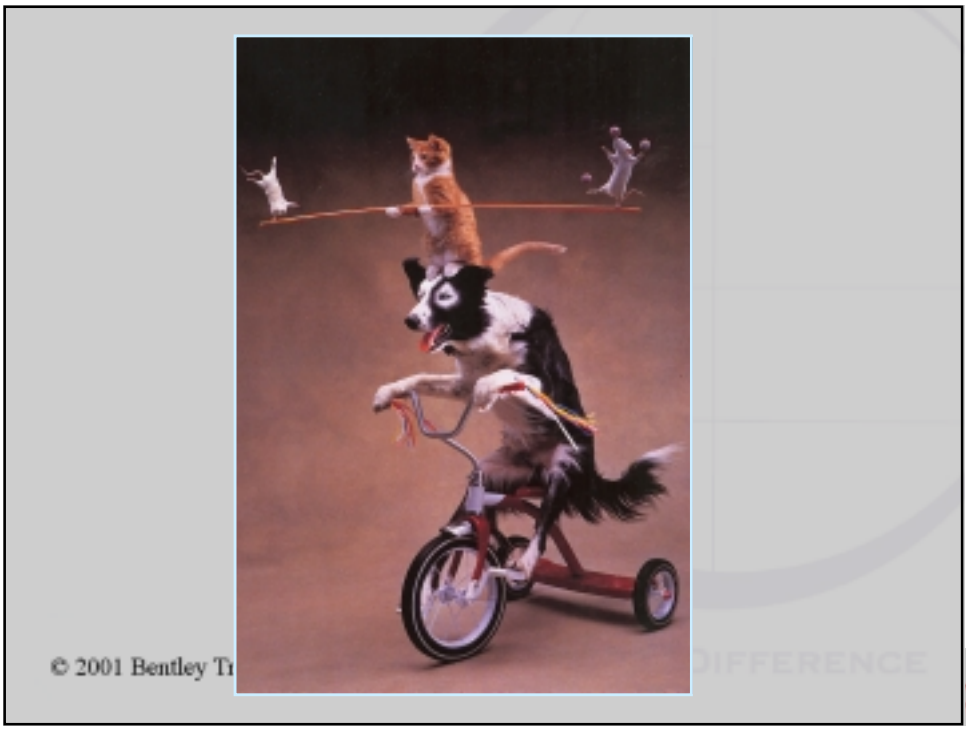

Tara Hills Dr.
Spanrock Dr.
Key Rd.


Gold Road Intersection
Boulevard
Engineering Link > Identify element
Cell: SQUARE2, Levels: 1

ECONOLITE ASC/2 SERIES
NEMA TS1 & TS2 ACTUATED
CONTROLLERS
ASC/2-2100: ASC-8000 interface
The ASC/2-2100, shown at the top of this web page, provides all capabilities of the ASC/2-1000 and -2000, plus an I/O expansion module for compatibility with Econolite's ASC-8000 controller. It adds an Econolite D connector, an Econolite telemetry connector and a NEMA overlap card connector which exactly match those of the ASC-8000. This allows the ASC/2-2100 to be used as a
Boulevard


170E Controller
170 E CONTROLLER
STANDARD FEATURES
• Multi purpose microcomputer
• Meets/exceeds most specs, including latest Caltrans and City of Los Angeles specs
• Operates in hostile environments
• Vertical board design
• Accepts 2 plug-in communications modules
• Low maintenance
• Low wattage, removable power supply
• Wired for future memory expansion (M slot)
BERKELEY
OAKLAND


ALBANY
BERKELEY
EMERYVILLE
OAKLAND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Summary

- Turnkey solution
- Integrated system (Hardware/Software/Network)
- Off the shelf products
- NTCIP Compliant
- TCP/IP based system
- Intel, NT, Oracle, Bentley ATMS

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Bentley Transportation

- Business Unit of Bentley Systems, Inc.
- Product Supplier/Systems Integrator
- 47 of 50 Departments of Transportation
- Atlanta ITS
- London Transport

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